

### 3 Strategic context and project need

Sydney’s population is forecast to increase to 5.9 million by 2031 (NSW Government 2014). With this increase in population it is anticipated there will be an increase in vehicles travelling on Sydney’s roads, with the number of trips made around Sydney each day forecast to increase by 31 per cent, from 16 million to 21 million vehicle movements, by 2036 (Infrastructure Australia 2015). This growth would place increasing pressure on the NSW transport network and the key travel demand corridors connecting regional cities and major centres across the greater Sydney metropolitan area.

Investment in infrastructure is needed to meet the demands of a growing population and the increased amount of vehicles travelling between the regions of Sydney, which is reflected in the aims of various NSW Government policies and plans. Plans such as *A Plan for Growing Sydney* (NSW Government 2014), *Towards our Greater Sydney 2056* (Greater Sydney Commission 2016b) and the draft District Plans (Greater Sydney Commission 2016) identify investment in transport infrastructure as achieving the objectives of these plans.

This chapter describes the strategic context of the M4-M5 Link project (the project) within the state and national planning and policy framework, explains the need and justification for the project from both regional and local perspectives, and outlines the project’s objectives.

The Secretary of the NSW Department of Planning and Environment (DP&E) has issued environmental assessment requirements for the project. These are referred to as the Secretary’s Environmental Assessment Requirements (SEARs). **Table 3-1** sets out the SEARs and the desired performance outcomes that relate to the strategic context and need for the project and identifies where these SEARs have been addressed in this environmental impact statement (EIS).

**Table 3-1 SEARs – strategic context and project need**

Desired performance outcome	SEARs	Where addressed in the EIS
<b>2. Environmental Impact Statement</b> The project is described in sufficient detail to enable clear understanding that the project has been developed through an iterative process of impact identification and assessment and project refinement to avoid, minimise or offset impacts so that the project, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts.	1. The EIS must include, but not necessarily be limited to, the following:	A description of the project objectives and how this relates to the objectives of the WestConnex program of works is provided in <b>section 3.3</b> .
	(c) a statement of the objective(s) of the project, including how it meets the objectives of the overall WestConnex program;	
	(d) a summary of the strategic need for the project with regard to its State significance and relevant State Government policy;	The need and justification for the project is described in <b>section 3.2</b> . Reference to the project’s State significance and relevant State Government’s policies is provided in <b>section 3.2</b> .

## 3.1 Strategic planning and policy framework

### 3.1.1 Overview

The following sections describe the compatibility of the project with relevant Australian Government and NSW Government policies and plans. The project is listed as a 'high priority initiative' in the *Australian Infrastructure Plan: The Infrastructure Priority List* (Infrastructure Australia 2016a). The project is also part of the NSW Government's commitment to deliver WestConnex for Sydney in response to the recommendations from the *State Infrastructure Strategy 2012–2032* (Infrastructure NSW 2012), the *State Infrastructure Strategy Update 2014* (Infrastructure NSW 2014), the *Long Term Transport Master Plan* (Transport for NSW 2012a), the NSW State Priorities announced in September 2015 (NSW Government 2015) and the *NSW Freight and Port Strategy* (Transport for NSW 2013b). The WestConnex program of works, which includes the project, also has the potential to be a catalyst for major urban renewal, as identified in *A Plan for Growing Sydney* (NSW Government 2014) and the *Draft Central District Plan* (Greater Sydney Commission 2016a).

In addition, *A Plan for Growing Sydney* (NSW Government 2014) presents a vision for Sydney as a strong global city and the nation's economic and financial powerhouse. It emphasises the need to improve access to major employment hubs and global gateways.

The project, as part of the WestConnex program of works, would aid in the delivery of these strategies and plans as it would:

- Provide a new motorway link between the M4 East at Haberfield and the New M5 at St Peters
- Reduce future traffic volumes on north-south and east-west road corridors, including City West Link and parts of Victoria Road
- Enhance the benefits achieved by the operation of the M4 East and New M5 projects by reducing traffic volumes on Parramatta Road, Southern Cross Drive, the Princes Highway, King Georges Road and the M5 East Motorway
- Together with the other components of the WestConnex program of works and the proposed future Sydney Gateway, the project would facilitate improved connections between western Sydney, Sydney Airport and Port Botany and south and south-western Sydney, as well as better connectivity between the important economic centres along Sydney's Global Economic Corridor and local communities
- Reduce travel times and improve reliability for bus services, business, personal and freight journeys along the Sydney road network
- Improve road safety by reducing traffic congestion on Sydney's arterial roads
- Facilitate opportunities for future urban renewal in precincts adjoining the project, including The Bays Precinct (in accordance with *The Bays Precinct Transformation Plan*), along Parramatta Road east of Haberfield (in accordance with *the Parramatta Road Corridor Urban Transformation Strategy*), and along Victoria Road between Iron Cove Bridge and City West Link, by reducing surface road traffic on Victoria Road, creating opportunities for improved connectivity, potential active transport links and public transport improvements and improved urban design outcomes and local amenity
- Enable future opportunities for improved connectivity in Sydney's transport network to be realised by allowing for connections to the proposed future Western Harbour Tunnel and Beaches Link project to the north and to the proposed future Sydney Gateway project and the proposed future F6 Extension (via the New M5 project) to the south.

Investment in the M4-M5 Link, together with the other WestConnex projects, would assist in facilitating the delivery of other major city-shaping improvements, such as the Parramatta Road Corridor Urban Transformation and The Bays Precinct Transformation, which would all contribute to delivering economic growth. As part of the broader WestConnex program of works, the project would support NSW's major sources of economic activity and provide a strategic response to the future transport demands on the already congested road network.

### 3.1.2 Australian Infrastructure Plan: The Infrastructure Priority List

Infrastructure Australia's *Australian Infrastructure Plan: The Infrastructure Priority List* (the Priority List) dated February 2016 sets out a number of projects and initiatives identified as priority infrastructure investments that Australia needs over the next 15 years. The projects and initiatives on the Priority List have been assessed for their economic viability, deliverability and strategic compliance with the principles of the *Australian Infrastructure Plan Report* (Infrastructure Australia 2016).

The Priority List is a reference point for Australia's most important infrastructure investments needs. The Priority List currently lists 100 major infrastructure proposals, including 18 projects that are all underpinned by a robust business case and have been approved by Infrastructure Australia. The Priority List provides independent, evidence-based advice to governments and industry on the projects that would most benefit Australia's growing communities. The list refers to high priority and priority projects and initiatives.

The Priority List identifies the project as a 'high priority initiative' to address urban congestion in Sydney's inner west and to realise the benefits of WestConnex. WestConnex, including the project, is listed as one of the seven 'high priority projects' on the 2017 *Infrastructure Priority List* (Infrastructure Australia 2017) (<http://infrastructureaustralia.gov.au/policy-publications/publications/Infrastructure-Priority-List.aspx>). A high priority project is defined as a potential infrastructure solution for which a full business case has been completed and assessed by Infrastructure Australia and which addresses a major problem or opportunity of national significance.

### 3.1.3 NSW State Priorities

In 2015, the NSW Premier announced a new set of State Priorities. These include a number of priorities relevant to WestConnex and therefore to the project:

- **Creating 150,000 new jobs by 2019** - creating jobs for the construction sector through infrastructure investment. WestConnex would create up to 10,000 direct and indirect jobs during construction (Sydney Motorway Corporation 2015). Job creation is discussed further in **Chapter 14** (Social and economic)
- **Building infrastructure** – key infrastructure across NSW would be delivered on time and on budget to support our growing population. WestConnex is a major infrastructure investment in NSW and would deliver more than \$20 billion in economic benefits to NSW. The economic benefits of the project are discussed further in **Chapter 14** (Social and economic)
- **Encouraging business investment** – infrastructure delivered by the government would significantly improve the ease of doing business in NSW by reducing congestion, increasing reliability and productivity and driving business confidence. By connecting the M4 East Motorway and the New M5 Motorway, the project would link key employment centres such as the Sydney central business district (CBD) with priority growth areas in western Sydney and would also provide improved conditions for freight transport (from the Sydney Airport and Port Botany precinct), thereby improving business efficiencies
- **Protecting NSW's credit rating** – NSW is one of only two Australian states to retain its AAA credit rating, which is an indication of a strong and stable economy (the AAA rating is the highest possible credit rating and is associated with lower borrowing costs due to lower risk to financial lenders). Strong financial management would ensure this strong fiscal position is retained. WestConnex is delivering financial solutions to fund delivery of the motorway to ensure the net result for the NSW economy is positive and to minimise impacts on the state's budget. WestConnex is funded by the NSW and Australian governments, as well as private sector debt and equity capital raised against tolls on completed stages of WestConnex (Sydney Motorway Corporation 2015). Further details on the economic impacts of the project and the tolling regime are provided in **Chapter 14** (Social and economic)

- **Boosting apprenticeships** – the NSW Government is committed to training apprentices and providing the states with a lasting legacy of a highly skilled workforce with on-the-job training. WestConnex is delivering more than 500 apprenticeships, which is half of the NSW Government's target for major infrastructure projects. The WestConnex Training Academy was established in 2016, in partnership with Western Sydney TAFE and other registered training organisations, to deliver skills training, apprenticeships and traineeships. Refer to **Chapter 14** (Social and economic) for more information
- **Improving road travel reliability** – new road infrastructure would help ensure that consistency of journey times on key roads improves (through enabling better use of existing roads, building extra road capacity and encouraging commuters to use public transport and undertake more off-peak travel), thereby reducing travel times and boosting productivity. WestConnex would deliver travel time savings for motorists across Sydney. Refer to **Chapter 8** (Traffic and transport) for more information
- **Reducing road fatalities** – improved motorways and roads are linked to a reduction in traffic incidents. WestConnex would provide a free-flowing motorway alternative for through traffic, reducing traffic on surface roads and improving traffic flows. This is expected to correlate with a lower number of road crashes. Refer to **Chapter 8** (Traffic and transport) and **Appendix H** (Technical working paper: Traffic and transport) for more information.

### 3.1.4 State Infrastructure Strategy

The *State Infrastructure Strategy 2012–2032* (Infrastructure NSW 2012) (*State Infrastructure Strategy*) is a 20-year strategy, which identifies and prioritises the delivery of critical public infrastructure to drive productivity and economic growth. Infrastructure NSW's assessment of the state's existing infrastructure highlighted critical deficiencies in urban road capacity. The *State Infrastructure Strategy* identifies strategic infrastructure options to meet the challenges of population growth and substantial increases in freight volumes.

The *State Infrastructure Strategy* recognises the economic impacts and other constraints created by congestion along the existing M5 and M4 motorway corridors and urban arterial roads that provide access to the centres of economic and social activity. The project would provide a vital link between the New M5 and the M4 East Motorways as well as connect to the proposed future Sydney Gateway project (via the St Peters interchange), which would provide access to Sydney Airport and Port Botany, in line with key *State Infrastructure Strategy* objectives.

The project is important for freight and business transport, and would provide connections to 'Global Sydney', which is part of a 'global economic corridor' (as defined in *A Plan for Growing Sydney*) discussed further in **section 3.1.7**). WestConnex is identified in the *State Infrastructure Strategy* as a critical program of work with a range of benefits including reducing congestion, improving access to the major international gateways of Sydney Airport and Port Botany (via the St Peters interchange), acting as a catalyst for urban regeneration along key corridors and supporting potential improvements in public transport, particularly along the Parramatta Road corridor. This is described in more detail in **Chapter 8** (Traffic and transport) and **Appendix H** (Technical working paper: Traffic and transport).

#### State Infrastructure Strategy Update

In November 2014, Infrastructure NSW released the *State Infrastructure Strategy Update 2014* (Infrastructure NSW 2014) (*State Infrastructure Strategy Update*), to guide the allocation of funds from the sale of the state's 'poles and wires' electricity network businesses, as part of the NSW Government's 2014 *Rebuilding NSW* initiative. The *State Infrastructure Strategy Update* recommends infrastructure projects and programs that should be prioritised to reduce congestion, support population growth and stimulate productivity across Sydney and regional NSW.

The *State Infrastructure Strategy Update* identified the possible expansion of WestConnex to include connections to Victoria Road and Anzac Bridge to the north and a connection to President Avenue at Rockdale to the south (the proposed future F6 Extension). These connections, together with a completed WestConnex and the proposed future Western Harbour Tunnel and Beaches Link, would provide a western bypass of the Sydney CBD, alleviating pressure on existing north-south corridors including the Southern Cross Drive, A1 (Princes Highway) and A3 (Centenary Drive/Roberts Road/King Georges Road) and the Sydney orbital network, as well as reducing traffic volumes on the

Sydney Harbour Bridge and Sydney Harbour Tunnel. These changes would reduce journey times between Sydney's northern and southern suburbs.

The project was updated to provide connections to Victoria Road, Anzac Bridge, City West Link, and the proposed future Western Harbour Tunnel and Beaches Link to the north and to support the connection to the proposed future Sydney Gateway project to the south (to connect with Sydney Airport and Port Botany), delivering on key parts of the *State Infrastructure Strategy Update*.

As a result of these changes to WestConnex outlined in the *State Infrastructure Strategy Update*, the WestConnex business case was updated in 2015 and published as the *WestConnex Updated Strategic Business Case* (Sydney Motorway Corporation 2015).

### 3.1.5 NSW Long Term Transport Master Plan

The *NSW Long Term Transport Master Plan* (Transport for NSW 2012a) (*Transport Master Plan*) provides a framework for delivering an integrated, modern and multi-modal transport system by identifying NSW's transport actions and investment priorities for the next 20 years. Under the *Transport Master Plan*, WestConnex is identified as a critical link in Sydney's motorway network and an immediate priority for the NSW Government.

The *Transport Master Plan* recognises that WestConnex would support Sydney's long-term economic growth by supporting the growing freight task between Sydney's international gateways and greater western Sydney, facilitating the transfer of goods and services between Sydney's eastern and western economic centres by improving capacity and reducing travel times, and supporting the continued development of Sydney's global economic corridor.

The *Transport Master Plan* recognises that WestConnex would also relieve road congestion, and improve the speed, reliability and safety of travel. Strategies to deliver an integrated package of transport improvements in parallel with the construction of WestConnex are recognised in the *Transport Master Plan*. The connection of each of these strategies to the project and WestConnex is discussed in the following sections and also in **Chapter 8** (Traffic and transport).

#### Transport mode-specific strategies

Various strategies have been developed to support the *Transport Master Plan*. These strategies are being taken into account during the project development to ensure integration and connectivity with different transport modes as appropriate. As part of WestConnex, the project delivers on the NSW Government's plans to deliver an integrated transport solution, comprising roads and public transport, to address congestion on Sydney's roads. This is discussed further in **section 3.2** and in **Chapter 4** (Project development and alternatives). The project, as part of the WestConnex program of works, aims to support and facilitate the vision outlined in the strategies, including:

- *Sydney's Rail Future: Modernising Sydney's Trains* (Transport for NSW 2012b) complements the *Transport Master Plan* with a particular focus on improving Sydney's rail system. Key rail projects have since been identified and have been considered by the project, including the Sydney Metro City and Southwest (between Chatswood and Bankstown) and the proposed Sydney Metro West (linking the Sydney CBD with Parramatta). The project has taken into account future metro lines in the design of the mainline tunnels and in the assessment of potential cumulative impacts from possible concurrent construction activity
- *Sydney's Light Rail Future: Expanding public transport, revitalising our city* (Transport for NSW 2012c) guides the delivery of modern, efficient and reliable light rail networks that integrate with other transport modes. *Sydney's Light Rail Future* states that, in the longer term, WestConnex may allow road space on some sections of Parramatta Road to be re-allocated to public transport. The reduction in traffic along Parramatta Road as a result of the project supports the potential development of future light rail (or other public transport improvements) along this corridor
- Key light rail projects include the Sydney CBD and South East Light Rail. The development of the project design and the impact assessment has taken into account the Sydney CBD and South East Light Rail project, particularly as that project includes a light rail maintenance depot at Lilyfield, located adjacent to surface works that are proposed as part of the M4-M5 Link project at the Rozelle Rail Yards

- *Sydney's Bus Future*: Simpler, faster, better bus services (Transport for NSW 2013a) complements the *Transport Master Plan* by planning improvements to Sydney's bus network. *Sydney's Bus Future* states that investment in the bus network would occur in parallel with WestConnex. It also highlights that WestConnex would assist in introducing a 'bus rapid transit' route along Parramatta Road in the long term, by providing an alternative route for longer distance vehicle trips along the M4/Parramatta Road corridor
- The project, together with the other projects that comprise the WestConnex program of works, would result in a reduction of traffic along sections of Parramatta Road, in particular east of the M4 East entry and exit ramps on Parramatta Road. This reduction in traffic would deliver improvements in Parramatta Road bus travel times during the AM and PM peak periods and would also facilitate realisation of public transport improvements along the Parramatta Road corridor associated with the *Parramatta Road Corridor Urban Transformation Strategy* (UrbanGrowth NSW 2016a). Further, the project design does not present any constraints to potential future bus rapid transit or light rail developments on Parramatta Road
- The provision of an underground connection between the project at the Rozelle interchange and Victoria Road near the eastern abutment of Iron Cove Bridge (the Iron Cove Link) would reduce traffic on Victoria Road (east of Iron Cove Bridge). This would improve journey times for buses along parts of the Victoria Road corridor
- *Sydney's Cycling Future*: Cycling for everyday transport (Transport for NSW 2013c) supports the strategic policy direction for transport and transport infrastructure for NSW outlined in the *Transport Master Plan* (Transport for NSW 2012a). *Sydney's Cycling Future* (Transport for NSW 2013c) provides the long-term plan to prioritise and provide for cycling in Sydney. These two documents identify a policy direction to ensure that 'the needs of bike riders are built into the planning of new transport and infrastructure projects' and that NSW would 'deliver bicycle infrastructure through major transport and development projects'.

The project would support *Sydney's Cycling Future* objectives by:

- Maintaining and, where feasible, improving network connectivity
- Where there is a substantial reduction in traffic as a result of the new infrastructure, enabling the future investigation of opportunities for enhanced cyclist facilities and connectivity for cyclists
- Where existing cyclist infrastructure and facilities, or access to them, are directly affected during or after construction, relocating the cyclist infrastructure and facilities with the aim of long-term enhancement.

**Chapter 5** (Project description) describes the proposed changes and enhancements to cyclist infrastructure and facilities. The project provides access for cyclists through the Rozelle Rail Yards site, creating north- south and east- west connectivity across the site to adjacent urban renewal precincts (including The Bays Precinct), open space areas (along Whites Creek, Easton Park, Bicentennial Park), public transport stops and cycleways (including along Lilyfield Road). Improvements to the existing active transport network, such as along Victoria Road, would also be undertaken by the project. Further details on active transport connectivity are discussed in **section 3.2.1**. Potential impacts and improvements to active transport are discussed in **Chapter 8** (Traffic and transport) and **Appendix N** (Technical working paper: Active transport strategy). The new and improved active transport links created by the project serve to connect the communities of Rozelle and Annandale that are currently separated by the Rozelle Rail Yards (not publicly accessible), the Inner West light rail corridor and the arterial road network (City West Link and Victoria Road)

- *Sydney's Walking Future: Connecting people and places* (Transport for NSW 2013d) is the NSW Government's long-term plan to promote walking as an active transport mode throughout Sydney and an integral component in planning urban growth precincts and new transport infrastructure.

The project would support the *Sydney's Walking Future* strategies through reductions in daily traffic volumes on sections of surface roads including Parramatta Road (east of the M4 East Parramatta Road ramps), City West Link and Victoria Road (south of Iron Cove Bridge), which would improve urban amenity and road safety for pedestrians.

The project would also provide new and improved pedestrians paths through the open space areas to be created at the Rozelle Rail Yards and along the southern side of Victoria Road, improving pedestrian connections in the local area. Further details on active transport connectivity are discussed in **section 3.2.1**. Potential impacts and improvements to active transport are discussed in **Chapter 5** (Project description), **Chapter 8** (Traffic and transport) and **Appendix N** (Technical working paper: Active transport strategy).

### 3.1.6 Sydney City Centre Access Strategy

The *Sydney City Centre Access Strategy* (Transport for NSW 2013e) (*City Centre Access Strategy*) is the NSW Government's long-term strategy to deliver a fully integrated transport network in Sydney's city centre that meets the growing needs for all transport modes. The *City Centre Access Strategy* aims to prioritise and allocate street space for public transport, general traffic, pedestrians, cyclists, taxis and service vehicles, thereby helping to improve Sydney's transport capacity. While the *City Centre Access Strategy* is focused on improving public transport access to and from the Sydney CBD, it acknowledges that WestConnex is a key infrastructure project that aims to ease congestion, create jobs and connect communities, and that it would provide improved access for freight, commercial and business vehicles.

The *City Centre Access Strategy* identifies a number of actions to achieve its objectives. Traffic forecasts show that the project is generally anticipated to have little impact, or to reduce traffic on some roads that are identified in the strategy as city centre bypass routes, such as the Cahill Expressway. However, other roads identified as city centre bypass routes are forecast to have increased traffic as a result of the project, including the Western Distributor and the Cross City Tunnel. While these forecast increases are not counter to the *City Centre Access Strategy*, changes in traffic volumes on these roads should be considered in the planning and implementation of the traffic and bypass priority routes. This is discussed further in **Appendix H** (Technical working paper: Traffic and transport).

### 3.1.7 A Plan for Growing Sydney

*A Plan for Growing Sydney* (NSW Government 2014) is a regional level plan that aims to promote the growth of Sydney by providing guidance on land use planning decisions in Sydney for the next 20 years. The plan describes where people are likely to live and work, and how they would move around the city and its subregions. The plan acknowledges that Sydney is a global city, and defines 'Global Sydney' as including the Sydney CBD, North Sydney CBD, Barangaroo, Darling Harbour, The Bays Precinct, Pyrmont–Ultimo, Broadway and Camperdown Education and Health Precinct, Central to Eveleigh, Surry Hills and City East.

The four goals defined in *A Plan for Growing Sydney* are supported by the project:

- Goal 1 – A competitive economy with world-class services and transport
- Goal 2 – A city of housing choice with homes that meet our needs and lifestyles
- Goal 3 – A great place to live with communities that are strong, healthy and well connected
- Goal 4 - A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The Plan also sets out specific directions and actions that would deliver these goals.

## **Goal 1 – A competitive economy with world-class services and transport**

Several directions under Goal 1 of *A Plan for Growing Sydney* are relevant to the project and to WestConnex more broadly. The project, in combination with the M4 East and M4 Widening projects, would support access for goods and services to the new priority growth area of Greater Parramatta to the Olympic Peninsula, identified in Direction 1.3 of *A Plan for Growing Sydney*.

Direction 1.5.2 seeks to minimise the impacts of the movement of freight on the communities through which freight travels. The project would assist in reducing these impacts by providing a motorway alternative for heavy freight trucks and other through traffic, reducing the use of Parramatta Road (between Haberfield and the Sydney CBD), City West Link, Victoria Road (east of Iron Cove Bridge), King Georges Road and the existing M5 East motorway, for freight. This is expected to lead to associated improvements in local air quality and lower traffic noise.

In order for Sydney to continue to be a competitive economy, improved transport connections are required between all the major centres that form part of Sydney's economic corridor (termed the 'global economic corridor' in Direction 1.6), which include areas such as the Sydney CBD, Parramatta CBD, Sydney Airport and Port Botany precinct and Sydney Olympic Park (see **Figure 3-1**). WestConnex would assist in increasing productivity between these centres by improving road connections and reliability of journey times for the transport of goods and services and business travel.

WestConnex, along with the M4 Motorway, M5 Motorway, M7 Motorway and the proposed M12 Motorway (between the M7 Motorway, Cecil Hills and The Northern Road, Luddenham) motorway corridors would provide a motorway standard link to the western Sydney Airport and western Sydney Employment Area, which is a key focus for economic growth in Sydney over the medium to long term.

## **Goal 2 – A city of housing choice with homes that meet our needs and lifestyles**

One of the primary benefits of the project, together with the M4 East and M4 Widening projects, would be a reduction in longer distance trips along Parramatta Road. Reducing these longer distance trips would lessen surface traffic on sections of Parramatta Road and facilitate the future renewal of nominated precincts along the Parramatta Road corridor. Direction 2.2 of *A Plan for Growing Sydney* outlines the need to promote urban renewal within Sydney, with Parramatta Road identified as one of the key corridors for renewal. Further discussion of the *Parramatta Road Corridor Urban Transformation Strategy* (UrbanGrowth NSW 2016a) can be found in **section 3.1.11**.

## **Goal 3 – A great place to live with communities that are strong, healthy and well connected**

The project would be consistent with Direction 3.1 of *A Plan for Growing Sydney*, which seeks to revitalise existing suburbs. As traffic has increased with the growth of Sydney, many areas along Parramatta Road and Victoria Road have become degraded and unattractive, with reduced amenity and limited parking. The project would support initiatives for the revitalisation of precincts along Parramatta Road (including Taverners Hill, Leichhardt and Camperdown), and along Victoria Road at Rozelle, and would aid proposed developments included as part of The Bays Precinct Transformation. It would do this by improving regional traffic connectivity, providing open spaces, providing active transport links, and reducing surface traffic on Parramatta Road and Victoria Road.

## **Goal 4 – A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources**

The project is being designed in line with the WestConnex Sustainability Strategy (Sydney Motorway Corporation 2015), which outlines an integrated approach to sustainability through design, delivery and operation. In construction, the project would aim to achieve a rating of 'excellent', applying the Infrastructure Sustainability Council of Australia (ISCA) rating system. Resilience to climate change has been taken into account as part of the design of the project. **Chapter 24** (Climate change and risk adaptation) outlines potential project adaptation measures and **Chapter 27** (Sustainability) provides further detail of sustainability considerations while **Chapter 23** (Resource use and waste minimisation) outlines the project's approach to the efficient use of resources and the minimisation of waste. **Chapter 4** (Project development and alternatives) describes the design considerations in the evolution of the project and the options and alternatives considered to minimise environmental and social impacts.



## Subregional planning

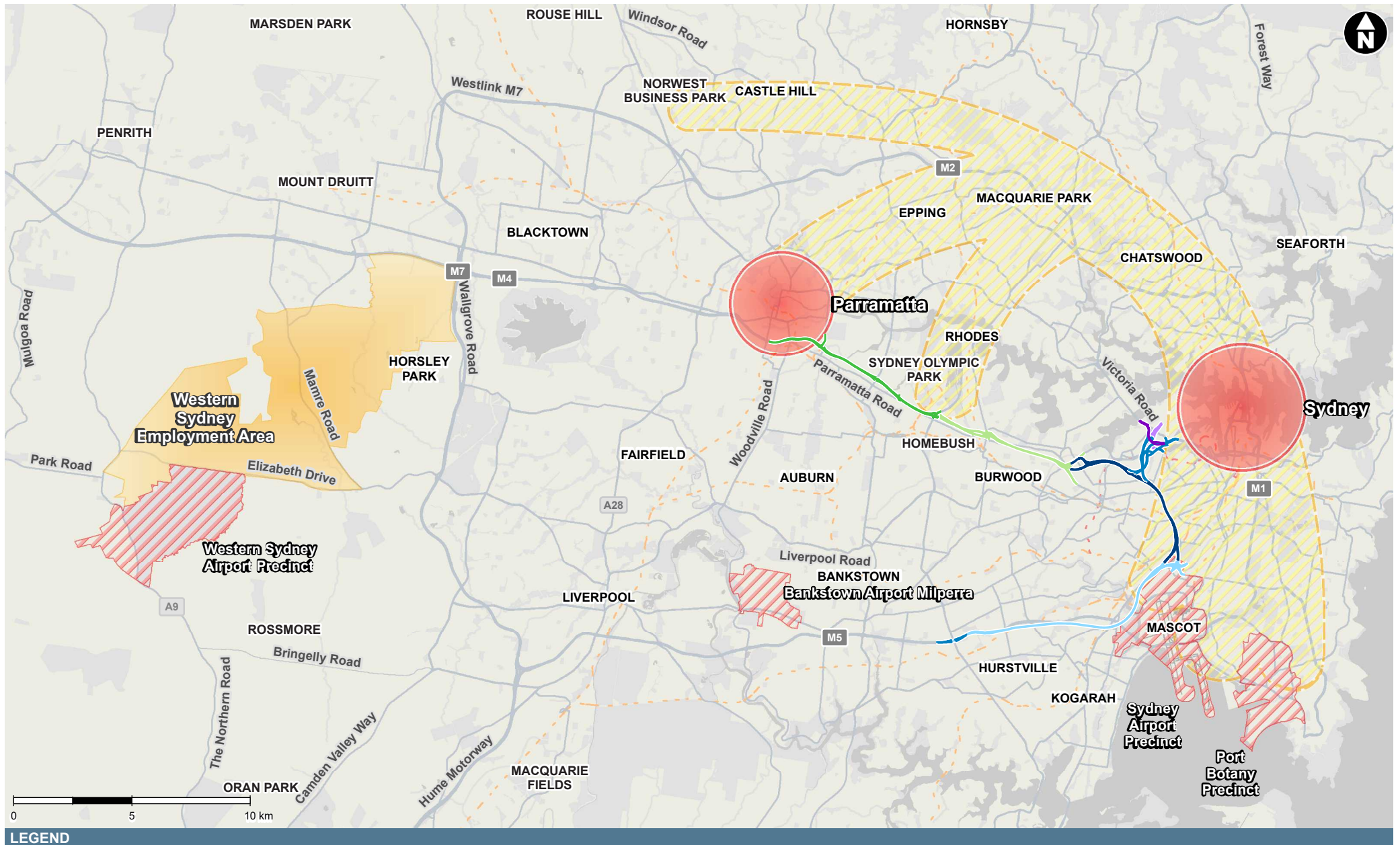
*A Plan for Growing Sydney* guides subregional planning by identifying the metropolitan priorities for each of the subregions across Sydney. Subregional planning demonstrates how the growth of the city would be closely integrated with long-term transport and infrastructure planning, as major renewal and growth programs capitalise on existing and planned transport.

The project is located within the Inner West and City of Sydney local government areas (LGAs), which are part of the 'Central Subregion' under *A Plan for Growing Sydney*. The priorities for the Central Subregion that are relevant to the project are to:

- Enable delivery of key transport projects to facilitate better connections to Global Sydney, including Sydney Rapid Transit, Sydney CBD and South East Light Rail, and WestConnex
- Work with local councils to identify suitable locations for housing intensification and urban renewal, including employment agglomerations, particularly around 'priority precincts', established and new centres, and along key public transport corridors
- Investigate a potential light rail corridor from Parramatta to the Sydney CBD via Parramatta Road.

The project would facilitate these priorities by reducing traffic on sections of Parramatta Road. This would potentially aid urban revitalisation and provide opportunity for improved public transport along Parramatta Road between Burwood and the Sydney CBD (also see **section 3.1.11**).

A priority for the Central Subregion includes the need to connect Port Botany and Sydney Airport to WestConnex. This would be achieved through the project and the New M5 project, which provides connection to the proposed future Sydney Gateway project (via the St Peters interchange). WestConnex is identified as a key transport project along with public transport projects such as the Sydney CBD and South East Light Rail, for the movement of people and freight within the Sydney basin.



Existing features		WestConnex		Proposed future Western Harbour Tunnel and Beaches Link connections (civil construction only)		Key economic areas	
- - - Railway	— Motorway	— M4 East	— King Georges Road Interchange Upgrade	— Rozelle interchange	▨ Transport gateway	▨ Western Sydney employment area	▨ Global economic corridor
- - - Light rail	— Arterial road	— M4 Widening	— New M5	— Iron Cove Link			
	— Subarterial road			— Mainline tunnel			

Figure 3-1 Key economic areas within Greater Sydney (adapted from A Plan for Growing Sydney)

### 3.1.8 Towards our Greater Sydney 2056

*Towards our Greater Sydney 2056* (Greater Sydney Commission 2016b) is the proposed amendment to *A Plan for Growing Sydney* and was released as a draft for public exhibition in November 2016, alongside the draft District Plans (see **section 3.1.9**). *Towards our Greater Sydney 2056* presents a major shift in strategic planning for Greater Sydney, with a long term transformational focus on the regional significance of central and western Sydney.

*Towards our Greater Sydney 2056* outlines a ‘three cities’ approach, with the Sydney CBD representing the ‘Eastern City’, the Parramatta CBD representing the ‘Central City’ and the future western Sydney Airport and surrounds representing the ‘Western City’. The rationale for this approach is to create economic diversification and improve Greater Sydney’s international competitiveness. Due to the magnitude of the changes associated with this new vision and the expected population and commercial growth in western Sydney, *Towards our Greater Sydney 2056* identifies the need for a sustainable supporting transport network.

The project, as part of the WestConnex program of works, complements this vision by providing improved connectivity between Eastern City, Central City and Western City of the greater Sydney metropolitan area.

### 3.1.9 Draft Central District Plan

In November 2016, the Greater Sydney Commission put on public exhibition draft District Plans for the six districts (North, Central, West Central, South, South West, and West) that make up Greater Sydney. A district represents neighbouring groups of council areas with similar features and common communities of interest. The aims of the draft District Plans are to provide a basis for strategic planning at a district level, establish planning priorities that are consistent with *A Plan for Growing Sydney* (see **section 3.1.7**), and identify actions to achieve those planning priorities. The district plans must also consider priorities identified by the Minister for Planning and other relevant plans, strategies, and NSW government policies. Proposed changes to regional planning, such as those outlined in *Towards our Greater Sydney 2056*, the proposed draft amendment to *A Plan for Growing Sydney* (see **section 3.1.7**), are also reflected in the draft District Plans.

The draft Central District Plan (Greater Sydney Commission 2016a) sets out priorities and actions for Greater Sydney’s Central District, which includes the LGAs of Bayside, Burwood, Canada Bay, Inner West, Randwick, Strathfield, City of Sydney, Waverley and Woollahra. The Plan addresses issues influencing Greater Sydney to 2056 with the aim of achieving a productive, liveable and sustainable city.

The Plan identifies opportunities for investment and growth, including development of The Bays Precinct (see **section 3.1.12**), implementation of the *Parramatta Road Corridor Urban Transformation Strategy* (see **section 3.1.11**) and delivery of a range of transport projects including the Sydney Metro City and Southwest, the CBD and South East Light Rail, WestConnex and the proposed future F6 Extension.

The Plan identifies the project and other components of WestConnex as ‘regionally significant transport infrastructure’. The Plan also acknowledges the opportunities provided by WestConnex to improve pedestrian and cyclist connections, enable urban renewal, improve transport services, and enhance amenity, especially along sections of Parramatta Road.

The objective of the Plan is to identify planning priorities for the Central District and the actions to achieve them. One of the identified actions includes ‘improve connections and amenity along the WestConnex corridor’. It is expected that Roads and Maritime Services would deliver on this action by:

- Working with local councils to provide better north–south connections across Parramatta Road
- Work with the NSW Government to identify and fund opportunities to increase amenity and open space in the vicinity of the WestConnex corridor
- Examine opportunities to further improve active transport linkages.

The project would contribute to the delivery of improved amenity and creation of new open space and create and improve active transport links. These benefits are described further in **Chapter 13** (Urban design and visual amenity) and **Chapter 8** (Traffic and transport) respectively.

### 3.1.10 NSW Freight and Ports Strategy

The aim of the *NSW Freight and Ports Strategy* (Transport for NSW 2013b) (*Freight Strategy*) is to provide a transport network in NSW that allows for the efficient flow of goods to market.

The *Freight Strategy* states that the NSW freight task is expected to almost double over the next 20 years. Such growth has implications for the capacity of the road network, with increased heavy vehicle volumes forecast on King Georges Road, the M4 Motorway, M5 Motorway and M7 Motorway, as well as key connections to Port Botany. Sydney's heavy vehicle freight task is highly dependent on the motorway network. More than 37 per cent of all heavy vehicle freight kilometres travelled in the Sydney Metropolitan Area is on the motorway and highway network, even though the network represents less than 17 per cent of the arterial road network. The *Freight Strategy* also identifies that the NSW road network carried 63 per cent of the state's total freight volume in 2011, with 33 per cent of freight carried by rail in the same year. Heavy vehicles would continue to have a substantial role in moving freight across NSW for the foreseeable future. The *Freight Strategy* identifies the challenge of increasing the capacity of NSW roads to support the growth in freight.

The *Freight Strategy* has two main objectives: to deliver a freight network that efficiently supports the projected growth of the NSW economy, and to balance freight needs with those of the broader community and the environment. The project is consistent with the three strategic action programs identified in the *Freight Strategy*:

- Network efficiency – the project would improve network efficiency by delivering travel time savings and improved connectivity to the proposed future Western Harbour Tunnel and Beaches Link and providing connection to the proposed future Sydney Gateway project to the south (via the St Peters interchange). This would provide more efficient movement of freight, reducing operational freight costs
- Network capacity – the project would provide increased road capacity and connectivity for the M4/Parramatta Road and M5 corridors and increase the capacity on the north-south network for the movement of freight between Sydney Airport/Port Botany (via the St Peters interchange) and the north and western suburbs
- Network sustainability – traffic modelling indicates that the project (together with the other WestConnex projects) would remove a large number of heavy freight vehicles from Parramatta Road (between Haberfield and Camperdown), City West Link, Victoria Road (east of Iron Cove Bridge), King Georges Road and the existing M5 East Motorway, which would result in improved network operation and efficiency. The delivery of WestConnex would reduce travel time by improving capacity and reducing surface road traffic. The *Freight Strategy* identifies improvements to network capacity as 'Strategic Action Program SAP 2'. Within this program:
  - Task 2A-1 is to establish corridors to meet the long-term freight needs of NSW. The project is specifically identified in the *Freight Strategy* as a key link to be investigated
  - Task 2B-1 is to connect and complete Sydney's motorway network. The *Freight Strategy* identifies key motorway connections with benefits for freight, including WestConnex, which would provide the opportunity to streamline interstate movements around and through Sydney.

### 3.1.11 Parramatta Road Corridor Urban Transformation Strategy

The *Parramatta Road Corridor Urban Transformation Strategy* (UrbanGrowth NSW 2016a) (*Parramatta Road Transformation Strategy*) identifies areas along the corridor (between Granville in the west to Camperdown in the east) where there would be a focus on encouraging growth and changes over the long-term (about 30 years). The aim of the strategy is to create an environment with good design, land-use mix, housing choice and infrastructure, as well as improved access to community facilities and services and access to public and active transport.

It is envisaged that up to 27,000 new homes and 50,000 new jobs would be generated in the corridor in the next 30 years (UrbanGrowth NSW 2016a). To improve the corridor, the *Parramatta Road*

*Transformation Strategy* has identified eight urban renewal precincts at Granville, Auburn, Homebush, Burwood–Concord, Kings Bay, Taverners Hill, Leichhardt and Camperdown.

WestConnex is identified within the *Parramatta Road Transformation Strategy* as a catalyst for the restoration of the Parramatta Road corridor, as it would reduce through traffic on the surface roads in the corridor. ‘Through traffic’ in this context refers to traffic that travels more than five kilometres along Parramatta Road to destinations away from Parramatta Road. The reduction in traffic, particularly trucks, would assist in improving public transport and urban amenity, both of which would support future growth along the corridor, in particular residential development.

A key element of the *Parramatta Road Transformation Strategy* is the delivery of improved public transport services along Parramatta Road, including the potential development of bus rapid transit. This project, together with the M4 East project, would reduce traffic on Parramatta Road between Burwood and the Sydney CBD, which would in turn free up road space for future public transport initiatives that would benefit existing and new residents along the Parramatta Road corridor. One of the conditions of approval for the M4 East project includes a requirement for that project to dedicate at least two lanes of Parramatta Road between Burwood and Haberfield for the sole use of public transport. This requirement is incorporated into the design of the M4 East project so that future public transport initiatives on Parramatta Road can be integrated with the WestConnex program. The project, together with the M4 East project, therefore complements the plans envisaged in the *Parramatta Road Transformation Strategy*.

The *Parramatta Road Transformation Strategy* also plans for the future construction and delivery of walking and cyclist infrastructure at key locations along the Parramatta Road corridor. This new infrastructure is not part of the project and would be subject to separate planning assessment and approval. Improvements to the active transport network that would be delivered by the project are described in **Chapter 8** (Traffic and transport) and **Appendix N** (Technical working paper: Active transport strategy).

The project traverses or is in proximity to three of the urban renewal precincts identified in the *Parramatta Road Transformation Strategy* – Taverners Hill, Leichhardt and Camperdown. The Camperdown precinct is directly affected by construction of the project.

The *Parramatta Road Transformation Strategy* also identifies part of the Camperdown precinct, at the intersection of Parramatta Road, Pymont Bridge Road and Mallett Street, as the proposed ‘Camperdown Triangle’, which could become a potential biomedical hub, due its proximity to the RPA Hospital. The project would include a temporary ancillary facility to support tunnel construction on a portion of the Camperdown Triangle. Once construction for the project is complete, this site would be rehabilitated and would then be available for future redevelopment (subject to separate planning assessment and approval) in accordance with the *Parramatta Road Transformation Strategy*.

The *Parramatta Road Transformation Strategy* is supported by the *Parramatta Road Corridor Implementation Plan 2016–2023* (UrbanGrowth NSW 2016b), which sets out prioritised actions to facilitate transformation in the corridor over the short-term until 2023. The *Parramatta Road Corridor Precinct Transport Report* (UrbanGrowth NSW 2016c) outlines transport plans for each of the precincts to support urban transformation in the Parramatta Road corridor over the short, medium and long terms.

The *Parramatta Road Transformation Strategy* has informed the Greater Sydney Commission’s draft District Plan for the Central District (see **section 3.1.9**) and is also discussed further in **Chapter 12** (Land use and property).

### 3.1.12 The Bays Precinct Transformation Plan

The *Transformation Plan: The Bays Precinct, Sydney* (UrbanGrowth NSW 2015b) (*The Bays Precinct Transformation Plan*) establishes the strategy for how The Bays Precinct would be developed over 20 years for residential, employment, entertainment and open space uses. The Bays Precinct, located about two kilometres west of the Sydney CBD, encompasses the areas surrounding Blackwattle Bay, Rozelle Bay and White Bay. The Bays Precinct comprises eight ‘destinations’, including the Rozelle Rail Yards, White Bay Power Station, White Bay and the Rozelle Bay and Bays Waterways.

The NSW Government's ambition for The Bays Precinct is 'to drive an internationally competitive economy, through the creation of great destinations on Sydney Harbour that would transform Sydney, NSW and Australia' (UrbanGrowth NSW 2015b). The NSW Minister for Planning has determined that the urban renewal of land within The Bays Precinct is a matter of state planning significance and has agreed to investigate the area as a State Significant Precinct. Refer to **Chapter 2** (Assessment process) for additional information on the planning implications of this proposed designation. The Bays Precinct delivery is intended to be staged and coordinated with the planning and delivery of WestConnex and the expansion of the Sydney Light Rail network as well as the long term considerations of The Bays Precinct's port uses. *The Bays Precinct Transformation Plan* recognises that an efficient transport system enables urban transformation, and that transport solutions for The Bays Precinct would need to be integrated with planning for a growing Sydney, including the consideration of varied transport modes.

### **Rozelle Rail Yards**

The Rozelle Rail Yards site is bounded by City West Link to the south, Lilyfield Road to the north, Balmain Road to the west and White Bay to the east. *The Bays Precinct Transformation Plan* identifies the former rail yards as providing an opportunity for mixed housing as well as public spaces and employment uses. *The Bays Precinct Transformation Plan* also identifies the potential for opportunities provided by the redevelopment of the Rozelle Rail Yards for integration and connection of communities to the north and south through the creation of public open space and improved connections between Lilyfield and the waterfront.

While the project is consistent with *The Bays Precinct Transformation Plan* vision for the creation of new open spaces, provision of new pedestrian and cyclist links, connecting communities and the acknowledgment of the rail heritage of the area, it is inconsistent with the Plan with respect to the development of the Rozelle Rail Yards for mixed housing and potentially also for employment uses.

The reasons for the project being inconsistent with this vision can be attributed to the nature of the project and the geographical area required for its construction and operation and also the commitment made by the NSW Government (announced in July 2016) that the project would deliver up to 10 hectares of new open space and active transport links for the community.

Should the project not proceed, the Rozelle Rail Yards would likely be developed in accordance with *The Bays Precinct Transformation Plan*, including the provision of public spaces, employment uses and mixed housing.

### **White Bay Power Station**

The White Bay Power Station is a recognised landmark in Sydney's inner west. The heritage-listed power station and surrounds have been earmarked under *The Bays Precinct Transformation Plan* for reuse as a hub for knowledge-intensive and advanced, technological industries. UrbanGrowth NSW is responsible for the redevelopment of the site, which is around 10 hectares in size. It was announced in August 2016 that UrbanGrowth NSW was in discussions with prospective tenants to occupy the redeveloped site. An announcement from UrbanGrowth NSW in April 2017 indicated a masterplan would be developed for the site and UrbanGrowth NSW would work with stakeholders and the community to identify appropriate uses for the area. The potential redevelopment would also consider opportunities for improving access to the proposed Waterfront Promenade at White Bay.

The project footprint includes part of the Rozelle Rail Yards, which is to the west of the White Bay Power Station on the other side of Victoria Road, and surface road changes at the intersection of Victoria Road and City West Link, as well as at the approach to Anzac Bridge. The project would not directly impact the White Bay Power Station building. The project would enable active transport connections between the White Bay Power Station site and the Rozelle interchange. This is described further in **Chapter 5** (Project description) and in **Appendix N** (Technical working paper: Active transport strategy).

The design and construction of the project has considered measures to minimise indirect impacts on the White Bay Power Station site. This includes minimising the project footprint in the vicinity of White Bay Power Station in order to reduce the indirect impacts associated with construction traffic, noise generation and air emissions. A further description of potential impacts on this heritage listed site and relevant mitigation measures is discussed in **Chapter 20** (Non-Aboriginal heritage).

## White Bay

White Bay is one of only two deep water wharves, west of the Sydney Harbour Bridge and is used for a variety of port uses including bulk vessel loading and vessel repairs. It is also the location of the White Bay Cruise Terminal. *The Bays Precinct Transformation Plan* identifies that the future development of White Bay would include a mix of port, maritime recreation and employment uses.

While the project does not interact directly with the White Bay destination, the reduction in traffic and improvement in local traffic volumes on sections of Victoria Road east of Iron Cove Bridge as a result of the project (specifically the Iron Cove Link), and improvements in regional vehicle access to this destination (via the Rozelle interchange) for current and future uses, would support local economic activities. The project also includes new active transport links through the Rozelle Rail Yards which would enable connections to future developments at White Bay.

## Rozelle Bay and the Bays Waterways

The Rozelle Bay and Bays Waterways destination (which includes Blackwattle Bay and Johnstons Bay) is home to a number of maritime and harbour industries and the foreshore is actively used for recreational fishing, private recreation craft and government patrol vessels. *The Bays Precinct Transformation Plan* identifies the future development of Rozelle Bay and the Bays Waterways as having new land and maritime uses including a mix of commercial and open space as well as working harbour industries and on-water recreation facilities. Opportunities to improve public access to the waterfront and waterways and to improve water quality are identified by UrbanGrowth NSW as objectives for this destination.

As with White Bay, the project is expected to improve vehicle and active transport accessibility to the Rozelle Bay and the Bays Waterways destination, which should improve the user experience. The project would interact directly with Rozelle Bay through proposed discharges of treated stormwater. This is discussed further in **Chapter 15** (Soil and water quality).

### 3.1.13 Action for Air

*Action for Air* (Department of Environment, Climate Change and Water 2009a) aims to improve the air quality in the greater Sydney metropolitan region. *Action for Air* identifies ozone and particles as the biggest air quality challenges for the region, and nominates actions and objectives specifically targeted towards reducing motor vehicle emissions.

The project would assist in meeting this goal by reducing vehicle emissions through anticipated faster travel times and improved road conditions for heavy vehicles, noting that heavy vehicles transporting dangerous goods would not be permitted to use the tunnels. This is reflected in the air quality impact assessment undertaken for the project (refer to **Appendix I** (Technical working paper: Air quality)), which is aligned with the objectives of the *Action for Air* policy. Further details regarding improvements to air quality as a result of the project are provided in **Chapter 9** (Air quality).

## 3.2 Project need and justification

The project is part of the NSW Government's commitment to deliver WestConnex for Sydney. Together with the WestConnex program of works, the project would facilitate improved connections between western Sydney and Sydney Airport and Port Botany (via the St Peters interchange), as well as better connectivity between key employment hubs and local communities.

The transport network in Sydney is expected to be put under increasing pressure over the next 20 years. *A Plan for Growing Sydney* (NSW Government 2014) indicated that from 2011 to 2031, Sydney's population is forecast to increase from 4.3 to 5.9 million, which equates to an average of 80,000 additional residents per year. Moreover, by 2036, the number of trips made around Sydney each day is forecast to increase by 31 per cent from 16 to 21 million vehicle movements. This growth would place increasing pressure on the NSW transport network and the key travel demand corridors connecting regional cities and major centres across the greater Sydney metropolitan area.

Key corridors currently accommodate high levels of daily traffic including freight, commuter and leisure travel. Users of these corridors frequently experience congestion and delay, particularly during weekday and weekend peak periods.

Both the *NSW Long Term Transport Master Plan* (Transport for NSW 2012a) and the *State Infrastructure Strategy Update 2014 (State Infrastructure Strategy)* (Infrastructure NSW 2014) identified the need to plan and invest in the future of Sydney's motorway network, which provides vital infrastructure connections within and between travel demand corridors. Any investment in motorway infrastructure has to be aligned with supporting public and active transport initiatives to achieve an increase in capacity, while aiming to reduce the reliance on and demand for private vehicles on the future road network.

The WestConnex project is one part of a broader solution to these emerging pressures. While public transport is also part of this solution, it is recognised that not all trips in Sydney can be served by public transport, especially trips to dispersed destinations, or commercial trips requiring the movement of large or heavy goods/materials. A congested road network also affects road-based public transport, increased bus travel times and variable journey time.

For these reasons, the NSW Government is also investigating and investing in light rail, metro, bus rapid transit and motorways to provide a multi-modal response to the future challenges. In this context, WestConnex is an enabler of integrated transport and land use planning, supporting the development of initiatives including The Bays Precinct and the *Parramatta Road Corridor Urban Transformation Strategy*.

While the development of the project would have unavoidable impacts (associated with, for example, property acquisition, construction impacts from heavy vehicle traffic, noise, vibration and dust, access disruptions and visual impacts) and in some areas, reduced road capacity and travel times, overall, the project would deliver a large number of benefits. Further detail on the need and justification for the project is presented in the following sections.

### 3.2.1 Improved connectivity

In order to achieve the broad strategic objectives outlined in *A Plan for Growing Sydney* and the more detailed District Plans, Sydney's businesses and households require good access for workers and for the distribution of goods and services across the Sydney region. Improved connections for workers, suppliers, trades and customers through improvements to the transport network, including the strategic road network, are needed to support the growth of these centres and the 'global economic corridor'.

By providing a motorway link between the M4 East at Haberfield and the New M5 at St Peters, the project would help to connect major employment centres, which are critical in supporting the creation of jobs and businesses. This would include centres within the 'global economic corridor' (see **Figure 3-1**), which includes the Sydney Airport and Port Botany precinct, Sydney CBD, Sydney Olympic Park, Parramatta CBD and Norwest Business Park. The project would also support the Western Sydney Employment Area, which is outside the global economic corridor, southwest of Parramatta.

Furthermore, the Rozelle interchange (a key component of the project) would provide connectivity with the local surface road network at City West Link, The Crescent and Victoria Road. The Rozelle interchange would also connect to Victoria Road via the Iron Cove Link and includes ramps, tunnels and supporting infrastructure to provide connection to the proposed future Western Harbour Tunnel and Beaches Link project.

The Rozelle interchange would enable the following corridors:

- A north–south corridor between the New M5 at St Peters and Rozelle that would bypass the Sydney CBD
- An east–west corridor between the M4 East at Haberfield and Anzac Bridge, connecting to the Sydney CBD and the Sydney Harbour Bridge.

The predominantly below ground design of the Rozelle interchange would provide a number of free flow connections and minimise the number of intersections at the surface.

Further details on surface road connectivity and tunnel connections as a result of the project, including connectivity at the Rozelle interchange, is provided in **Chapter 5** (Project description). The current high volumes of traffic along Parramatta Road between Haberfield and Camperdown mean that east–west movements are given priority. This limits north–south movements across the



Parramatta Road corridor, including pedestrian and cyclist movements. The project, together with the M4 East and M4 Widening projects, would reduce traffic on Parramatta Road (east of Haberfield). This would create opportunities for improving north–south movements across the Parramatta Road corridor. Similarly, Victoria Road has become a barrier to east- west movements, as the high volumes of traffic travelling north- south along Victoria Road are given priority. The reduction in traffic along Victoria Road (between Iron Cove Bridge and City West Link) as a result of the Iron Cove Link would allow a more balanced surface road network in the Lilyfield/Rozelle area, including The Bays Precinct.

The project would further improve connectivity by delivering new and upgraded active transport network (ATN) links including cycleways and pedestrian paths. This infrastructure has been designed to maintain and enhance pedestrian and cyclist accessibility and connectivity, providing new and upgraded east–west and north–south connections, linking Lilyfield and Rozelle with Balmain, Annandale, Glebe, Leichhardt and the Sydney CBD.

Additional information on active transport links created or improved by the project is provided in **Chapter 5** (Project description) and **Appendix N** (Technical working paper: Active transport strategy).

### 3.2.2 Easing congestion

The WestConnex program of works, as part of an integrated transport solution for Sydney, is expected to reduce traffic on many parts of the Sydney road network. This investment in Sydney's road network would facilitate improvements across the network and generate benefits to the Australian economy. Further details on how the project would ease congestion and thereby aid economic benefits are described below.

#### **Economic and social impact of road congestion**

The road network in the traffic and transport study area currently functions under high levels of traffic demand, which often exceeds the operational capacity, especially citybound during the AM peak period. Major routes in the traffic and transport study area, such as Parramatta Road, City West Link, Victoria Road, Anzac Bridge/Western Distributor, Southern Cross Drive, Princes Highway and King Street, all experience significant congestion with resultant increase in travel time and variability, which can cause typical morning and evening peak hours to spread over longer periods, and extend the peak period.

The overall forecast growth in traffic demand is consistent with the forecast growth in population in the Sydney Metropolitan Area. Importantly, this growth in traffic is not confined to major routes – increased traffic on many roads in Sydney is forecast without the project in the 2023 and 2033 peak periods, as vehicles seek to avoid the congested arterial road network by travelling along lower order roads.

Without WestConnex, by 2031 travel speeds and congestion would significantly worsen on the road network serving western and southwestern Sydney (including the M4 Motorway, Parramatta Road, City West Link and the M5 Motorway corridor) and connections to Sydney Airport and Port Botany (eg the M1 corridor also known as Southern Cross Drive/Eastern Distributor). Congestion would also be a major issue on the key north–south links that connect the M4 and M5 motorway corridors (eg the A3 corridor also known as Centenary Drive/Roberts Road/King Georges Road), even with planned future public transport enhancements (Sydney Motorway Corporation 2015).

New road capacity is urgently required to meet the challenge of population growth and substantial increases in freight volumes. WestConnex plays a vital role in meeting these needs. The imbalance between population growth and employment growth rates in western Sydney means that there would remain strong demand for workers to travel by car or public transport to eastern Sydney and to centres that form part of the 'global economic corridor'. There would also be strong demand for non-peak hour business travel between the economic centres of eastern and western Sydney.

Congestion not only has detrimental economic effects, but also has human implications related to longer commute times and associated environmental and social impacts. The potential benefits of a reduced commute time may include more time spent with family and friends, increased productivity at work and lower stress levels.

Congestion also reduces the safety of road networks as it results in more frequent vehicle crashes and traffic incidents that impact personal safety, property and road network performance. Rear-end

crashes result from stop-start conditions and are an indicator of road congestion. During the five-year period between 1 January 2011 and 31 December 2015, 60 per cent of crashes on key roads around the proposed Rozelle interchange, such as City West Link and Anzac Bridge, were rear-end crashes. This is consistent with roadways approaching capacity and on which a high level of queuing occurs. Further details of crash analysis undertaken for the project is provided in **Appendix H** (Technical working paper: Traffic and transport).

The project would also reduce traffic on parallel north-south and east-west corridors including City West Link and parts of Victoria Road. Further information is provided in **Chapter 8** (Traffic and transport).

### **Impact of congestion on freight services**

By 2031, freight in NSW is projected to nearly double to 794 million tonnes as compared to 2011 (409 million tonnes). In the absence of any improvements to the road network, road freight would continue to be subject to capacity constraints and peak hour congestion in Sydney, particularly on the M4, M5 and M7 Motorways and within the M1 corridor (Southern Cross Drive/Eastern Distributor) and A3 corridor (Centenary Drive/Roberts Road/King Georges Road) (Transport for NSW 2013b).

Sydney Airport serves a growing freight market, with freight projected to increase from around 600,000 tonnes in 2012 to over one million tonnes per year by 2033 (Sydney Airports Company Limited 2014). Sydney Airport is in the same economic precinct as Port Botany. The port handles the second highest volume of containers in Australia and is NSW's primary container port. A third container terminal was added in mid-2014. In 2010, NSW container freight volumes were around 1.9 million units (measured in 'twenty-foot equivalent unit' containers or TEU). By 2020, this is forecast to grow to between three and 3.6 million TEU; reaching between 4.9 and seven million TEU by 2030 (Transport for NSW 2013b).

The project would reduce freight journey times and improve reliability by connecting the M4 and M5 motorway corridors and supporting the connection with the proposed future Sydney Gateway project (via the St Peters interchange) with the Sydney Airport and Port Botany precinct, leading to an overall increase in the capacity of the strategic freight network.

### **Impact of congestion on public transport**

The Parramatta Road corridor is one of Sydney's busiest corridors for public transport. During the morning peak, Parramatta Road has one of the highest numbers of bus passengers of any major bus route in Metropolitan Sydney. Congestion on Parramatta Road has led to bus services being delayed and unreliable (ie not running to timetable).

During UrbanGrowth's consultation on the *Parramatta Road Transformation Strategy*, improved public transport services were identified by survey participants as the highest priority issue for the Parramatta Road corridor. By diverting traffic from the surface road network along major transit routes and reducing the traffic on Parramatta Road to the east of Haberfield, the project would create an opportunity to further improve bus service efficiency through to the Sydney CBD and enable further expansion of public transport services along the Parramatta Road corridor. This could potentially include development of on-street rapid transit, by either bus or light rail, between Burwood and the Sydney CBD.

Results from the operational traffic modelling undertaken for the project show that the general trend is an improvement in bus travel times during the morning and evening peak periods along Parramatta Road. This is more notable for buses travelling eastbound, due to extra bus lane provisions between Dalhousie Street and Sloane Street allowing buses to bypass much of the eastbound congestion leaving the network via Parramatta Road in the east. The westbound direction is less congested in the modelled traffic scenarios, and so benefits to buses are less significant, given there is reduced general traffic congestion.

As described in **section 3.1.11**, one of the conditions of approval for the M4 East project includes a requirement for that project to dedicate at least two lanes of Parramatta Road between Burwood and Haberfield for the sole use of public transport.

While the project, specifically the Iron Cove Link, would result in reduced surface traffic on Victoria Road (east of Iron Cove Bridge), this does not imply an improvement in bus travel times inbound

along this corridor. This is because there are other factors associated with the existing road network that need to be considered, such as the existing capacity constraints on Anzac Bridge during peak periods. The project would impact on travel times for buses to and from the Sydney CBD via Anzac Bridge and Victoria Road. Results from the operational traffic modelling show that travel times would be slightly worse inbound to the city during the morning and evening peak periods but significantly improved outbound during both the morning and evening.

Further details on travel time changes for buses are provided in **Appendix H** (Technical working paper: Traffic and transport).

### **Impact of congestion on pedestrians and cyclists**

The existing arterial road network comprising City West Link, The Crescent, Victoria Road and Parramatta Road, present a number of constraints to the movement of pedestrians and cyclists. Traffic congestion and the resultant noise and air quality impacts, as well as poor road safety conditions, reduces the attractiveness of these roads for cyclists, even though they are in many cases the quickest and most direct routes to the Sydney CBD and other destinations. Such amenity and safety impacts also contribute to the lack of appeal of these roads for pedestrians.

By reducing traffic along Victoria Road and providing a number of new or missing ATN links, the project would provide improve conditions for the use of these roads by pedestrians and cyclists. Similarly, as the project does help reduce traffic along Parramatta Road, it would help create opportunities for the development of future ATN links by others, such as the council or government agencies.

### **3.2.3 Viable economic proposal**

The *WestConnex Updated Strategic Business Case* (Sydney Motorway Corporation 2015) appraised the economic benefits of WestConnex on an incremental basis, with and without each component project which are described in **Chapter 1** (Introduction), by considering the following parameters:

- The direct costs to the community, which included:
  - Capital costs, including construction costs
  - The costs of temporary traffic management and diversions during construction
  - Operating and maintenance costs
- The direct benefits to the community, which included:
  - Travel time saved by freight, service and passenger users
  - Travel time reliability improvements
  - Reductions in vehicle operating costs
  - Reductions in road incident costs
  - Externality reductions including air pollution, greenhouse gas emissions, noise pollution
  - Foregone local road maintenance
- The indirect benefits to the community, which included:
  - Benefits that other transport users derive from an expansion in the road network
  - Reductions in travel times and congestion costs on surrounding road links used by other transport users
  - Benefits that neighbouring businesses derive from better access to their businesses.

The benefit cost ratio is a measure of the net benefit to society derived from the capital investment in the project. The benefit cost ratio for the project alone identified in the *WestConnex Updated Strategic Business Case* is 2.38:1 when the wider economic benefits of the project are not taken into consideration. When the wider economic benefits are considered, the benefit cost ratio is 2.94:1. For the project, this means that for every dollar invested, the project would return \$2.38 or \$2.94 when

considering the return in addition to the wider economic benefits. These ratios indicate an economically viable proposal. Benefits of the project are described in **section 3.4**.

The economic analysis for the WestConnex program of works, including the project, determined that WestConnex would create benefits that would outweigh the upfront construction costs and ongoing operational costs. The analysis found that WestConnex has a benefit cost ratio of 1.71:1, when assessed without reference to the wider economic benefits of the projects, and a benefit cost ratio of 1.88:1 when the wider economic benefits are considered. The wider economic benefits relate to agglomeration economies (ie improved connectivity between areas with high employment densities) and labour market deepening (ie benefits arising from a reduction in the cost of commuting, encouraging more people to take up employment). The 1.88:1 benefit cost ratio includes the M4-M5 Link and the proposed future Sydney Gateway project (which is being delivered by Roads and Maritime and subject to a separate assessment process) (Sydney Motorway Corporation 2015).

The *WestConnex Updated Strategic Business Case* was independently reviewed by Infrastructure for NSW and Infrastructure Australia. The latter confirmed that the full value of WestConnex would only be realised once the project (based on the preliminary design presented in that document) was completed.

Funding of WestConnex, as proposed in the WestConnex Updated Strategic Business Case, assumes a distance based toll would be implemented on operation of each component project. Distance based tolling means that motorists would only pay tolls for the sections of the motorway they use. The proceeds of the toll on each component project once operational would be applied to fund the construction of other components of the WestConnex program of works. A maximum toll for the use of the M4-M5 Link would be \$6.50 (\$2017). Tolls would escalate up to a maximum of four per cent or the consumer price index (CPI) per year (whichever is greater) until 2040. After that, CPI would apply. Tolls for the entire WestConnex Motorway would be capped at a maximum amount of \$8.60 (\$2017) for cars and light commercial vehicles and a distance of around 40 kilometres. This would provide significant time and cost savings for motorists. Cars and light commercial vehicles would pay around one third of the toll for heavy commercial vehicles.

The project would enhance the benefits of the WestConnex program of works for travel between western Sydney and the Sydney CBD. For example, a person driving a car in 2017 from Penrith to the Sydney CBD currently has the option of travelling along the M4 Motorway, which ends at Concord, and then would need to travel on the congested surface road network to the Sydney CBD. An alternative route between Penrith and the CBD using the M4 Motorway, WestLink M7, the Hills M2 Motorway, Lane Cove Tunnel and the Sydney Harbour Bridge or the Sydney Harbour Tunnel would cost around \$22.00 in tolls (\$2017) and is a distance of around 55 kilometres. After opening in 2023, the project would provide a journey using the M4 Motorway straight through to Anzac Bridge, via the M4-M5 Link, for a toll capped at \$8.60 (\$2017) and a distance of around 40 kilometres. This would provide significant time and cost savings for motorists.

### 3.2.4 Opportunities for public transport improvements

Traffic modelling undertaken for the project shows that around 100,000 vehicles would use the project each day in 2033. This would free up space on surface roads, which may create opportunities for dedicated public transport lanes for buses and light rail.

Over the coming years, significant population and employment growth is expected along the Parramatta Road corridor, The Bays Precinct, around Mascot, at Green Square and along the Central to Eveleigh corridor, which would increase the demand for travel. Long-term transport improvements (across all transport modes) are required to manage this growth and to promote urban renewal. Regardless of this growth, people already living and working in these areas and corridors need to be provided with improved transport infrastructure and services.

The project, together with the other projects that comprise the WestConnex program of works, would result in a reduction of traffic along sections of Parramatta Road, in particular east of the M4 East entry and exit ramps on Parramatta Road. This reduction in traffic would deliver improvements in Parramatta Road bus travel times during the AM and PM peak periods and would also facilitate realisation of public transport improvements along the Parramatta Road corridor associated with the *Parramatta Road Corridor Urban Transformation Strategy* (UrbanGrowth NSW 2016a).

The project has considered future public transport initiatives that are approved (but not yet under construction), in the planning stage, or reasonably expected to occur (as outlined in a government strategy or plan refer to **Appendix H** (Technical working paper: Traffic and transport)).

As discussed in **section 3.2.2**, by decreasing traffic along Victoria Road (east of Iron Cove Bridge) the project could improve travel times for some bus services, particularly outbound from the Sydney CBD.

### 3.2.5 Future trends in transport

Sydney's population is changing and would continue to change. In the last decade the number of train and bus trips grew faster than the rate of population growth, meaning that a greater percentage of the population is travelling on public transport. In the same timeframe, there were fewer vehicle drivers under 30 years of age on roads than drivers over 60 years of age (Bureau of Transport Statistics Household Travel Survey Highlights 2014/2015). This indicates that fewer young people are driving and owning cars and are using both public transport and other mobility service providers, such as ride sharing services and taxis, for their trips.

This is part of a worldwide trend known as 'mobility as a service' which includes hiring a car with a driver, such as traditional taxis and Uber type services, as well as the car-share services such as GoGet, which provide a range of vehicle types for urban drivers, including businesses, as needed. Data from GoGet shows that each car-share vehicle removes 10 privately owned vehicles from the road. Currently 88 per cent of GoGet members in Sydney do not own a car, and 80 per cent of GoGet members use active or public transport for their journey to work. This leads to an overall reduction in vehicles on the roads and it is estimated that, on current trends, in 20 years Sydney car-share users would drive 180 million kilometres less per year than if they owned cars. This outcome would not only reduce congestion but would free up on-road space for other uses such as cycle lanes.

Concurrent with these trends is the development of autonomous vehicles for both buses and cars. It is expected that fully autonomous vehicles would be active on our roads within the next 15 to 20 years, reducing the need for licensed drivers. They would provide greater opportunities for mobility impaired people and added convenience for other users. It is unlikely that the majority of these vehicles would be privately owned due to their cost, but fleets of autonomous vehicles could be provided as a service.

While the use of these vehicles could potentially increase the daily vehicle kilometres travelled, it would also substantially reduce the need for commuter car parks, freeing up existing car parks for other land uses. Policies are needed to ensure that autonomous vehicles augment and do not compete with public transport services. One example of the positive use of autonomous vehicles to augment public transport would be for the 'first and last kilometre' travel to and from bus or rail stations.

Irrespective of the timing and magnitude of these trends there is still a need to provide for the growth in commercial and freight travel demand and to reduce congestion across the Sydney road network. The project would provide the road connections for the future range of vehicles, and in particular reduce through traffic on local surface roads by providing efficient alternative routes through the underground tunnel network.

### 3.2.6 Facilitating urban renewal

The delivery of transport improvements is crucial to the realisation of urban renewal. The project, as part of the WestConnex program of works, would act as a catalyst for urban renewal along parts of Parramatta Road and Victoria Road and would support the development of The Bays Precinct, as outlined in *The Bays Precinct Transformation Plan* (UrbanGrowth NSW 2015b). The project would directly contribute to the following outcomes:

- Connected communities – improved balance between north–south and east–west movements without compromising traffic flow. This also applies to active transport connectivity. The project would create improved cyclist and pedestrian links, especially through the Rozelle Rail Yards, connecting the suburbs of Lilyfield, Rozelle, Annandale and Glebe and also providing improved connections to The Bays Precinct

- A safer environment – improved intersections and traffic flow would reduce traffic incidents, while changes to surface road layouts and provision of additional cyclist links and pedestrian bridges would make it safer for pedestrians and cyclists
- Additional open space – the project would deliver up to 10 hectares of new open space and recreational facilities, mainly at the Rozelle Rail Yards, through the development of the Rozelle interchange
- A sustainable transport route – by increasing traffic capacity, the project supports greater use of public and active transport (walking and cycling), reduces the number of vehicles on sections of Parramatta Road and Victoria Road, and allows for future growth and urban changes in the Parramatta Road and Victoria Road corridors as well as The Bays Precinct.

While urban renewal is not a direct outcome of the project, the project would enable other states agencies and local councils to realise urban renewal plans, resulting in an improvement to urban amenity.

### 3.3 Project objectives

The specific objectives of the project are:

- Linking the M4 East and New M5 motorways so that further benefits and opportunities of WestConnex can be realised
- Improving traffic conditions and reducing congestion on key arterial roads in proximity to the project
- Improving accessibility and reliability for commercial vehicle movement in the M4 and M5 motorway corridors to economic centres, including to the Sydney Airport and Port Botany precinct
- Facilitating urban renewal in areas where the project would reduce traffic
- Minimising impacts associated with acquisition of residential and commercial properties on communities
- Enabling long-term motorway network development by providing a connection to the proposed future Western Harbour Tunnel and Beaches Link project to the north
- Delivering a project with a beneficial urban design outcome.

As the project is part of the WestConnex program of works, the objectives of the project are consistent with those of WestConnex, as stated in the *WestConnex Updated Strategic Business Case*. **Table 3-2** outlines how the project would meet the broader WestConnex objectives.

**Table 3-2 Meeting the WestConnex program objectives**

WestConnex program objectives	How the project meets the WestConnex objectives
Support Sydney's long-term economic growth through improved motorway access and connections linking Sydney's international gateways with western Sydney and places of business across the city.	The project is a critical motorway link that contributes (together with the M4 East and New M5 projects) to connecting western Sydney's population and growth centres with employment and business opportunities in the Sydney CBD and in the Sydney Airport and Port Botany precinct.  Further detail on the economic impacts and opportunities provided by the project is provided in <b>Chapter 14</b> (Social and economic) and <b>Appendix P</b> (Technical working paper: Social and economic).
Relieve road congestion so as to improve the speed, reliability and safety of travel on the M4, M5 and Sydney CBD/Sydney Airport/Port Botany corridors, including parallel arterial roads.	The traffic assessment undertaken for the project demonstrates that the project has the potential to reduce vehicle movements and improve travel times on Parramatta Road (east of Haberfield), Victoria Road (east of Iron Cove Bridge), City West Link, Southern Cross Drive, King Street and the Princes Highway.

WestConnex program objectives	How the project meets the WestConnex objectives
	<p>The M4-M5 Link connects to the proposed future Sydney Gateway via the St Peters interchange, which would improve connectivity between Sydney's international gateways (Sydney Airport and Port Botany), western Sydney and places of business across the Sydney region.</p> <p>The road design, in conjunction with clear wayfinding (ie navigation signage/roadway markers), would provide a safe, legible and easily navigable series of tunnels that provide a high quality customer experience.</p> <p>Further detail on traffic impacts, including improvements to road safety and travel times, is provided in <b>Chapter 8</b> (Traffic and transport) and <b>Appendix H</b> (Technical working paper: Traffic and transport).</p>
<p>Cater for the diverse travel demands along these corridors that are best met by road infrastructure.</p>	<p>The key customers who would benefit from the project include:</p> <ul style="list-style-type: none"> <li>· Highly dispersed and long distance passengers</li> <li>· Heavy and light freight and commercial services</li> <li>· Businesses whose travel patterns are highly dispersed and diverse.</li> </ul> <p>The transport demands of these customers are best served by an efficient motorway connection. The project would meet this WestConnex objective by relieving congestion within and in proximity to the project footprint and facilitating efficient passenger and freight movements through Sydney.</p>
<p>Create opportunities for urban renewal, improved liveability, and public and active transport improvements along and around Parramatta Road.</p>	<p>The urban design and active transport improvements created by the project are principally focused on transforming the Rozelle Rail Yards where the motorway connections meet existing surface roads and along Victoria Road (south of Iron Cove Bridge).</p> <p>However, by reducing traffic along Parramatta Road (east of Haberfield) the project facilitates an opportunity for urban renewal and liveability improvements in communities along the Parramatta Road corridor. A reduction in vehicles on this corridor may result in greater safety for cyclists and pedestrians, making these alternative modes of transport more desirable.</p> <p>The Parramatta Road corridor is an important bus route servicing the inner west. As demand for public transport is forecast to grow, the WestConnex program of works has explored opportunities to facilitate the integrated use of public transport options on the road network.</p> <p>The reduction in traffic along Parramatta Road as a result of the project facilitates the future development of on-street rapid transport (either bus or light rail) as envisaged by the NSW Government.</p> <p>The project also includes use of land at Annandale, at the junction of Parramatta Road and Pyrmont Bridge Road, as a temporary construction ancillary facility. This</p>

WestConnex program objectives	How the project meets the WestConnex objectives
	<p>site would be rehabilitated and made, available for future redevelopment once construction of the project is complete.</p> <p>A description of the active transport improvements created by the project is provided in <b>Chapter 8</b> (Traffic and transport) and <b>Appendix N</b> (Technical working paper: Active transport strategy). An overview of potential land use impacts is provided in <b>Chapter 12</b> (Land use and property).</p>
<p>Enhance the productivity of commercial and freight-generating land uses strategically located near and along transport infrastructure.</p>	<p>By connecting the New M5 and M4 East motorways, the project provides improved access for commercial vehicles transporting freight from the Sydney Airport and Port Botany precinct to western Sydney. Reducing travel time may lead to increased business productivity and reduced costs.</p> <p>The project would also contribute to improved profitability for commercial and freight businesses through reduced transport costs, in terms of money and time lost to congestion and fuel consumption. It may also contribute to the desirability of services that rely on transport along the corridor.</p>
<p>Fit within the financial capacity of the State and Federal Governments, in partnership with the private sector.</p>	<p>The project, as part of WestConnex, is being funded by the NSW and Australian governments, as well as private sector debt and equity capital, raised against tolls on completed stages of WestConnex.</p>
<p>Optimise user pays contributions to support funding in a way that is affordable, equitable and fair.</p>	<p>A tolled motorway would facilitate user pays contributions and reduce the overall burden on the wider community in NSW. Inclusion of a toll makes construction of the project affordable and equitable, as the cost is shared between tax payers and individual users of the M4-M5 Link.</p> <p>The project comprises tolled and untolled components. Use of the mainline tunnel and Rozelle interchange for long distance trips would be tolled. The Iron Cove Link would remain untolled to provide relief to Victoria Road.</p> <p>Further information on project tolling is provided in <b>Chapter 14</b> (Social and economic).</p>
<p>Integrate with the preceding and proposed future stages of WestConnex projects without creating significant impacts on the surrounding environment or duplicating any potential issues across the construction periods.</p>	<p>As the project aims to link the M4 East and New M5 projects, opportunities for minimising impacts at both ends of the project have informed the design development process and high level construction programming from the earliest stages.</p> <p>The project has been designed to minimise the project footprint and maximise the use of land already disturbed or being used for road infrastructure (such as at Haberfield and St Peters).</p> <p>The potential impacts from consecutive construction activities across various WestConnex component projects are discussed in <b>Chapter 26</b> (Cumulative impacts) as these activities affect specific local communities.</p>



WestConnex program objectives	How the project meets the WestConnex objectives
<p>Provide the ability for an additional Sydney Harbour tunnel road crossing, the Western Harbour Tunnel and Beaches Link (subject to approval), to connect to WestConnex.</p>	<p>The project scope includes the civil construction of ramps, tunnels and associated infrastructure for the proposed future Western Harbour Tunnel and Beaches Link at the Rozelle interchange. These works include:</p> <ul style="list-style-type: none"> <li>· Tunnels that would allow for underground connections between the M4 East and New M5 motorways and the proposed future Western Harbour Tunnel and Beaches Link (via the M4-M5 Link mainline tunnels)</li> <li>· Entry and exit ramps extending north from the Rozelle interchange at the Rozelle Rail Yards below ground. This would enable future surface connections between the realigned City West Link/The Crescent intersection and the proposed future Western Harbour Tunnel and Beaches Link tunnels</li> <li>· A ventilation outlet and ancillary facilities as part of the Rozelle ventilation facility.</li> </ul> <p>Further description of how the project would provide the ability to connect to the proposed future Western Harbour Tunnel and Beaches Link is provided in <b>Chapter 5</b> (Project description) and <b>Chapter 6</b> (Construction work).</p>
<p>Support improved connectivity between Sydney, the Sutherland Shire, and the Illawarra, with the ability for the proposed future F6 Extension to connect to WestConnex.</p>	<p>While the project does not directly link to the proposed future F6 Extension, by connecting the Rozelle interchange to the New M5 (which would connect to the F6 Extension), the project would provide a connection between the Sydney CBD and the southern regions.</p> <p>A description of this connectivity and the potential impact on traffic flow is discussed in <b>Chapter 8</b> (Traffic and transport).</p>

### 3.4 Benefits of the project

The project would deliver the following key benefits and opportunities:

- Ease congestion on surface roads by providing an underground motorway alternative and allowing for increased use of surface roads by pedestrians and cyclists and for public transport
- Reduce through traffic on sections of major arterial roads including City West Link, Parramatta Road, Victoria Road, King Street, King Georges Road and Sydenham Road, facilitating urban renewal opportunities to be realised along parts of the Parramatta Road and Victoria Road corridors
- Improve network productivity on the metropolitan network, with more trips forecast to be made or longer distances travelled on the network in a shorter time. The forecast increase in vehicle kilometres travelled (VKT) and reduction in vehicle hours travelled (VHT) is mainly due to traffic using the new motorway, with reductions in daily VKT and VHT also forecast on non-motorway roads
- Reduce travel times on key corridors, such as between the M4 Motorway corridor and the Sydney Airport/Port Botany precinct and between the main centres on the Global Economic Corridor, including Sydney CBD, Sydney Olympic Park, Parramatta CBD and Norwest Business Park

- Deliver up to 10 hectares of new open space at the Rozelle interchange which would provide an open space link between Bicentennial Park at Glebe and Easton Park at Rozelle
- Deliver new north–south and east–west pedestrian and cycleway connections to link Rozelle and Lilyfield with Annandale, Balmain, Glebe and The Bays Precinct
- Facilitate future growth in Sydney’s transport network by allowing for connections to the proposed future Western Harbour Tunnel and Beaches Link and Sydney Gateway projects.

Further benefits to road network performance, traffic conditions and ATN links, are discussed further in **Chapter 8** (Traffic and transport) while social and economic benefits associated with the project are discussed further in **Chapter 14** (Social and economic).